materials as described above with respect to heat-exchanger plates 136. In addition, similar aperture-forming techniques may be used to form inlet and outlet apertures 238, 240. Recessed regions 248 may be formed by coining or a material removal technique, such as chemical milling, laser ablation, micro-machining or conventional machining, among others. One skilled in the art will appreciate that the foregoing recess-forming techniques may be used on one or both sides of a plate so that a single plate may take the place of any two or more plates solely having apertures formed therein for defining a particular passageway within a stack of plates. For example, referring to FIG. 3, inlet wall plate 174, heat exchanger plate 136, and spacer plate 138 may be replaced by a single plate having recesses formed on one side corresponding to inlet apertures 180 and on the opposite side corresponding to outlet apertures 156 and combination apertures 158.

In the Claims:

Substitute the following substitute claims for the corresponding existing claims. Copies of the substitute claims showing the amendments made appear in an attachment hereto.

1. **(Once Amended)** A heat exchanger, comprising:
   a) a core having a length, a width perpendicular to said length and a heat transfer surface extending along said length and said width and being external to said core;
   b) a plurality of first manifolds formed in said core and extending along said length;
   c) a plurality of second manifolds formed in said core and extending substantially co-extensively, and located alternatingly across said width, with said plurality of first manifolds; and
   d) a plurality of interconnecting channels formed in said core and spaced from one another along said length, each of said plurality of interconnecting channels having a first end fluidly communicating with at least one of said plurality of first manifolds at a location distal from said heat transfer surface and a second end fluidly communicating with at least one of said plurality of second manifolds.

12. **(Once Amended)** An assembly, comprising:
   a) a heat exchanger comprising:
      i) a core having a length, a width perpendicular to said length and a heat transfer surface extending along said length and said width and being external to said core;
      ii) a plurality of first manifolds formed in said core and extending said length;
      iii) a plurality of second manifolds formed in said core extending said length and located alternatingly with said plurality of first manifolds across said width; and

iv) a plurality of interconnecting channels formed in said core and spaced from one another along said length, each of said plurality of interconnecting channels having a first end fluidly communicating with at least one of said plurality of first manifolds at a location distal from said heat transfer surface and a second end fluidly communicating with at least one of said plurality of second manifolds; and

b) a device in thermal communication with said heat-transfer surface.

17. **(Once Amended)** A heat exchanger, comprising:

a) a core having a length, a first volume, and a heat-transfer surface located externally with respect to said core;

b) a plurality of first manifolds extending along said length and having a second volume;

d) a plurality of second manifolds extending substantially coextensively with said plurality of first manifolds and having a third volume; and

d) a plurality of interconnecting channels each fluidly connecting at least one of said plurality of first manifolds with at least one of said second manifolds, said plurality of interconnecting channels spaced from one another along said length of said core;

e) wherein the sum of said second volume and said third volume is at least 20% of said first volume.

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